

REMARKS

This amendment is filed in response to the Office Action dated October 2, 2007. In view of these amendments and remarks, this application should be allowed and the case passed to issue. No new matter is introduced by this amendment. The amendment to claim 1 is supported by claim 4 as originally filed. Claim 10, as originally filed, supports the amendment to claim 7. The specification is amended to correct an informality.

Claims 1-3, 5-9, and 11-18 are pending in this application. Claims 13-16 have been withdrawn pursuant to a restriction requirement. Claims 17 and 18 are apparently withdrawn, though the Office Action does not indicate the status of these claims. Claims 1-12 were rejected. Claims 1 and 7 have been amended in this response. Claims 4 and 10 have been canceled in this response.

Initially, it is noted that the Examiner did not address the status of pending claims 17 and 18 in the Office Action.

Objection to the Claims

Claims 4 and 10 were objected to under 37 C.F.R. 1.75(c) as being of improper dependent form for allegedly failing to further limit the subject matter of a previous claim. This objection is traversed, and reconsideration and withdrawal respectfully requested.

Claims 4 and 10 have been canceled, thus these objections are moot.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-4 and 7-10 were rejected under 35 U.S.C. § 102(b) as being anticipated by Peled et al. (US 5,591,543). This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested. The following is a comparison between the present invention, as claimed, and the cited prior art.

An aspect of the invention, per claim 1, is a non-aqueous electrolyte secondary battery comprising a negative electrode, a positive electrode including a positive electrode active material capable of storage and release of lithium, and a non-aqueous electrolyte. The positive electrode active material has a rock-salt structure containing lithium and is composed of an oxide containing magnesium electrochemically substituted for part of lithium.

Another aspect of the invention, per claim 7, is a positive electrode active material capable of storage and release of lithium, having a layered rock-salt structure containing lithium, and being composed of an oxide containing magnesium electrochemically substituted for part of lithium.

The Examiner asserted that Peled et al. teach a nonaqueous electrolyte secondary battery comprising a positive electrode wherein the cathode contains an oxide containing magnesium substituted for a part of the lithium. The Examiner maintained that the rock salt crystal structure is an inherent property of the claimed composition.

Peled et al., however, do not anticipate the claimed non-aqueous electrolyte secondary battery and positive electrode active material because Peled et al. do not disclose a positive electrode active having a layered rock-salt structure containing lithium, and being composed of an oxide **containing magnesium electrochemically substituted for part of lithium**, as required by claims 1 and 7.

As disclosed by Peled et al., MO or MCO_3 is mixed when a positive electrode active material is synthesized. According to Peled et al., a portion of the MO or MCO_3 remains to serve as a desiccant buffer (column 4, lines 3-6). As a result, inactive MO or MCO_3 is included in the positive electrode, leading to lower capacity. In contrast thereto, in the present invention, magnesium is electrochemically substituted for lithium, thus inert magnesium residues are not

included in the positive electrode. Thus, the positive electrode active material of the present invention does not suffer from the reduced capacity of Peled et al.

An object of Peled et al. is to increase the number of cycles (see column 3, lines 21-22), whereas an object of the present invention is to improve the capacity (page 2, lines 3-9). The difference in structure of the positive electrode active material of the present invention provides the improved capacity of the present invention. The positive electrode active material of the present invention does not contain inactive magnesium residues, as would the positive electrode active material of Peled et al.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the disclosure in a single reference of each element of a claimed invention. *Helifix Ltd. v. Blok-Lok Ltd.*, 208 F.3d 1339, 54 USPQ2d 1299 (Fed. Cir. 2000); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994); *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 399, 36 USPQ2d 1101 (Fed. Cir. 1995); *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). Because Peled et al. do not disclose a positive electrode active having a layered rock-salt structure containing lithium, and being composed of an oxide containing magnesium electrochemically substituted for part of lithium, as required by claims 1 and 7, Peled et al. do not anticipate claims 1 and 7.

Applicants further submit that the cited prior art does not suggest the claimed non-aqueous electrolyte secondary battery and positive electrode active material.

Claim Rejections Under 37 C.F.R. § 103

Claims 5, 6, 11, and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Peled et al. in view of Loch et al. (US 6,171,723). This rejection is traversed, and reconsideration and withdrawal respectfully requested.

The Examiner averred that Peled et al. do not teach a non-aqueous electrolyte including an imide salt. The Examiner alleged that Loch et al. teach that it is well known to employ imide salts in ethylene carbonate and dimethyl carbonate electrolyte mixtures.

The combination of Peled et al. and Loch et al. do not suggest the claimed non-aqueous electrolyte secondary battery and positive electrode active material because Loch et al. do not cure the deficiencies of Peled et al. Loch et al. do not suggest a positive electrode active material having a layered rock-salt structure containing lithium, and being composed of an oxide containing magnesium electrochemically substituted for part of lithium, as required by claims 1 and 7.

The present claims are further distinguishable over the cited references because Loch et al. disclose lithium imide electrolyte salt (column 5, lines 53-55) not an imide salt with a magnesium cation as required by claims 5, 6, 11, and 12. Furthermore, the imide salt with the magnesium cation is introduced via the electrolyte during discharge of the battery (see page 17, lines 8-11 and lines 16-18 of the present specification).

Thus, it is clear that the present battery and positive electrode active material are structurally distinct from the prior art battery and positive electrode active material.

The dependent claims are allowable for at least the same reasons as claims 1 and 7 and further distinguish the claimed non-aqueous electrolyte secondary battery and positive electrode active material.

Application No.: 10/801,655

In view of the above amendments and remarks, Applicants submit that this case should be allowed and passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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